Overview of the Federal Government's SBIR & STTR Programs

Business Opportunity Forum

May 16, 2008

Program Descriptions

Small Business Innovation Research (SBIR)

Set-aside program for small business concerns to engage in federal R&D -- with potential for commercialization

2.50% of Extramural R&D Budget

Small Business Technology Transfer (STTR)

Set-aside program to facilitate cooperative R&D between small business concerns and U.S. research institutions -- with potential for commercialization.

0.30% of Extramural R&D Budget

SBIR/STTR: 3-Phase Program

- PHASE 1
  - Feasibility study
  - Up to $100K award (SBIR/STTR)
  - 6 months duration (SBIR)
  - 12 months duration (STTR)
- PHASE 2
  - Technology Development
  - 2-Year Award
  - Up to $750K (SBIR/STTR)
- PHASE 3
  - Technology Infusion/Commercialization Stage
  - Use of non-SBIR Funds
  - Ability to award sole-source contracts without JOFOC based on specific SBIR authority

Congressional Objectives

- Stimulate technological innovation
- Strengthen the role of SBC's in meeting Federal research and development needs
- Increase the commercial application of the resulting research
- Encourage participation of socially and economically disadvantaged persons and women-owned small business

SBIR/STTR Programs Critical Differences

Research Partner

SBIR: Permits research institution partners
[Outsource ~ 33% Phase I and 50% Phase II]

STTR: Requires research institution partners (e.g., universities)
40% small business concerns (for-profit) and
30% U.S. research institution (non-profit)]

AWARD ALWAYS MADE TO SMALL BUSINESS

Agency Differences Exist

ALWAYS CHECK WITH THE AGENCY

	DoD	NASA	DoT	EPA	DoE	DHS	DoC	NSF	USDA	DoED	NIH
Award Type ***Contract or Grant***	C	C	C	C	G	C	C	G	G	G/C	G/C
Award Amount Phase I	70K-100K[b]	100K	100K	70K	100K 9 mos	100K	75K	100K	80K	100K	100K[a]
Award Amount Phase II	500K-750K	600K	750K	345K	750K	750K	300K	500K[b]	350K	750K	750K[a]
Review Process	I	I	I	E	E	I	I	E	E	I	E
Research Topics	S	S	S	S	S	S	S	B	B	S	B
Gap Funding	Y	Y*	N	N	Y	N	N	Y	Y	N	Y
Communications	R	R	R	R	R	R	R	O	O	O	O

C - Contract
I - Internal Review
S - Specific
R - Restricted

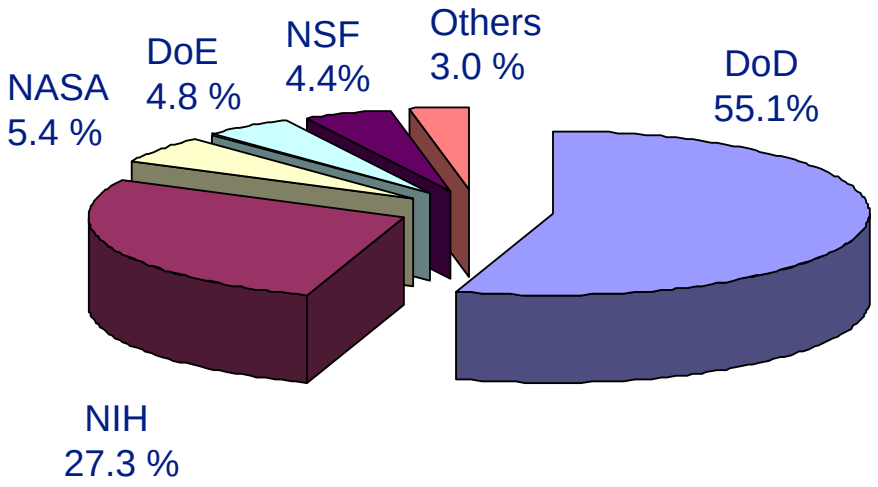
G - Grant
E - External Review
B - Broad
O - Open

[a] Deviations permitted with justification
[b] Some agencies offer Phase II options
Information Updated 3/5/07

SBIR/STTR Agency Funding

$2.2 Billion available*

Contracting Agencies	
DOD	$1,294M
NASA	$118M
EPA	$7M
DOT	$10M
ED	$8M
DOC	$11M
DHS	$29M
Internal Proposal Reviews	



Granting Agencies	
HHS/NIH	$449M
ED	$8M
NSF	$88M
USDA	$18M
DOE	$120M
External Reviews	

NASA

SBIR $105M

STTR $13M

*Estimate based on 2006 data

SBIR/STTR Program Eligibility Checkpoints

- Organized for- profit U.S. business
- At least 51% U.S.-owned and independently operated
- Small Business located in the U.S.
- SBIR P.I.’s primary employment must be with small business during project
- STTR P.I.’s primary employment may be with either the small business or research institute
- 500 or fewer employees

Some Important Facts to Remember

- Eligibility is determined at time of award
- Proposals are screened for page limits
- The PI is not required to have a Ph.D.
- The PI is required to have expertise to oversee project scientifically and technically
- Applications may be submitted to different agencies for similar work
- Awards may not be accepted from different agencies for duplicative projects

Intellectual Property

- Contractors own resulting intellectual property (data, copyrights, patents, etc.)
- Government has royalty-free rights for government use of intellectual property
- Government protects data from public dissemination for four years after contract ends

Why Participate in SBIR/STTR?

1. Over $2.25 Billion available every year
2. Funds are NOT A LOAN - no repayment - up to $850K capital
3. Small businesses retain intellectual property rights
4. Provides seed money to fund high risk projects
5. Develop working relationship & credibility with government R&D
6. Fosters partnerships with large corporations and academia
7. Provides recognition and visibility for your business
8. Participation attracts venture capital and other funding sources

How to Win?

Suggest a Topic

- SBIR/STTR Subtopics are written for small business by researchers and managers
- Topics solicit innovative ideas to solve technical challenges
- Each topic is carefully reviewed each year
- SBIR/STTR Programs seek private sector input in selecting and refining potential topic areas for future SBIR and STTR solicitations

Know Your Customer

- Review last year's solicitation and review the titles and some abstracts of the winning proposals in your area of interest
- If there is a pre-solicitation on the Web read, and comment on the text (DoD has one, NASA does not)
- Talk to the people in your technical area who write subtopics and review proposals at the agency where you intend to submit your proposal
  - Find their technical emphasis, needs, and interest
  - Solve a sponsors problem
  - Align your technology/proposal to the sponsor's final needs

How to Win?

Follow the Directions

- Read the directions from the sponsoring agency
- Address all areas that will be scored in the evaluation by that agency
- Don't underestimate the importance of commercialization
- Mark appropriate proposals as "Proprietary" never "confidential". Mark only those pages that must be protected.
- Submit your proposal electronically prior to the last 24 hours

Form A Team

- If appropriate, form a team with universities or other companies
- Get advice from your local small business advisory resources
- Get an independent review of your proposal prior to submission

How to Win?

Tips

- Start early and do your homework
- Lay out the evaluation criteria and write to satisfy them
- Don’t pad the proposal to get to the 25 page limit
- Don’t subcontract Government facilities or equipment with SBIR funds
- Comply with Conflict of Interest rules
- Prepare your proposal in accordance with the solicitation instructions or your proposal may be rejected administratively
- Submit your proposal electronically prior to the final 24 hour rush.

Reminders

- The PI is not required to have a Ph.D., but is required to have expertise to oversee project scientifically and technically
- Applications may be submitted to different agencies for similar work, but awards may not be accepted from different agencies for duplicative projects

NASA Mission

To Pioneer the Future in Space Exploration, Scientific Discovery, and Aeronautics Research

NASA SBIR/STTR: 3-Phase Program

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  - Feasibility study
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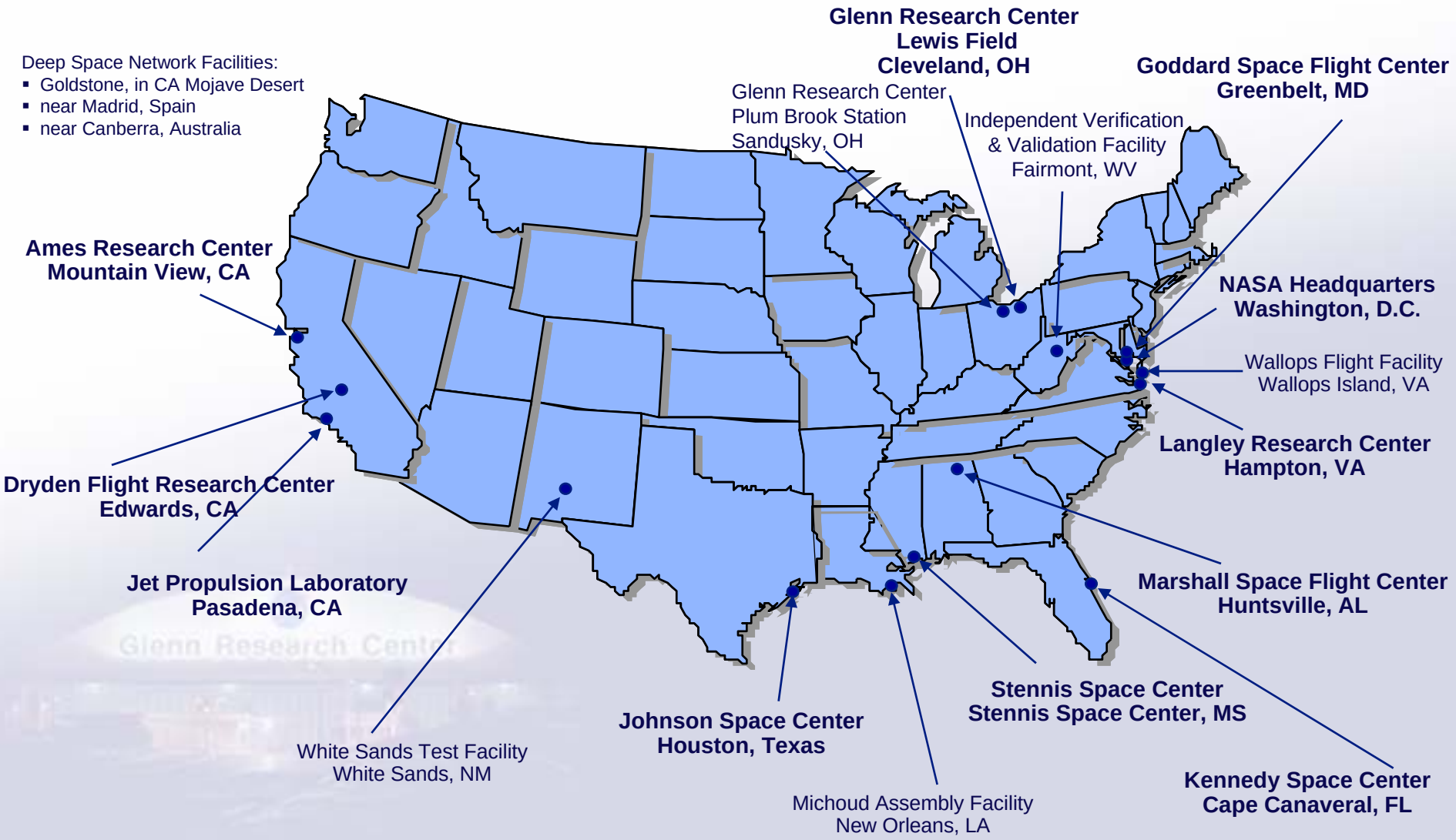
  - 6 months duration (SBIR)
  - 12 months duration (STTR)
- PHASE 2
  - Technology Development
  - 2-Year Award
  - Up to $600K (SBIR/STTR)
  - Phase 2-E option up to $150K
- PHASE 3
  - Technology Infusion/Commercialization Stage
  - Use of non-SBIR Funds
  - Ability to award sole-source contracts without JOFOC based on specific SBIR authority – NASA and NASA primes

NASA SBIR/STTR Budget for 2006-2007

Year	SBIR	STTR
2007	$106.6M	$12.8M
2006	$105.6M	$12.3M

NASA Centers and Installations



NASA Directorate Interests

- **Aeronautics Research Mission Directorate (ARMD)**
  (www.aeronautics.nasa.gov)
  - **Aviation Safety and Security**
  - **Fundamental Aeronautics**
  - **Airspace Systems**
  - **Aeronautics Test Technology**
- **Exploration Systems Mission Directorate (ESMD)**
  (www.exploration.nasa.gov)
  - **Lunar Initiative Technology Support**
  - **Power**
  - **Propulsion**
  - **Biological Sciences**

NASA Directorate Interests

- **Science Mission Directorate (SMD)**
  (www.science.hq.nasa.gov)
  - **Earth Science**
  - **Solar System Exploration**
  - **Telescopes**
  - **Sensors and Detectors**
  - **Helioscience**
  - **Spacecraft Technologies**
- **Space Operations Mission Directorate (SOMD)**
  (www.hq.nasa.gov/osf)
  - **Communications**
  - **Operations**
  - **Transportation**
  - **Navigation**

SBIR/STTR Program Transition

- Focus agency technology needs and achieve infusion
- Created 4 primary SBIR/STTR Center offices to interface with the 4 MD
- Assigned 2 primary offices to handle crosscutting technologies
- Created a SBIR/STTR Technology Infusion Manager (STIM) position at each of the 10 centers

SBIR Primary Offices	Mission Directorates	Cross Cutting Programs
Glenn Research Center	ARMD	• Comm • (ESMD/SOMD/SMD)
Langley Research Center	ESMD	
Jet Propulsion Laboratory	SMD	
Ames Research Center	SOMD	• SmallSats (ESMD/SMD/SOMD) • Human Life Sciences (ESMD/SOMD)

Proposal Evaluation Process

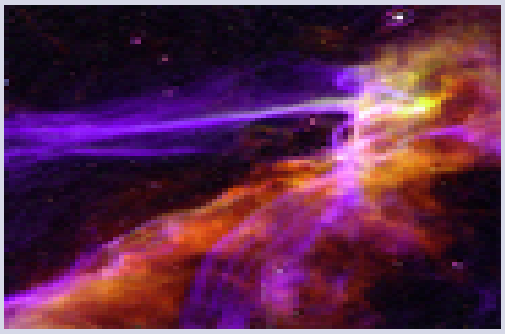
- Evaluations are performed by NASA scientists and engineers to determine the merit of a proposal
- A proposal that is reviewed based on the evaluation criteria and if recommended for award will be ranked relative to all other recommended proposals
- All firms will receive a debriefing automatically via email
- Evaluation factors:
  - Scientific/Technical Merit and Feasibility
  - Experience, Qualifications and Facilities
  - Effectiveness of the Proposed Work Plan
  - Commercialization

2007 NASA Phase 1 SBIR/STTR Selection Statistics

- SBIR:
  - 1,500 proposals were received from 714 firms located in 43 states
  - 305 proposals recommended
  - 276 selections were made (18%)
- STTR:
  - 166 proposals were received from 117 firms located in 31 states
  - 84 proposals recommended
  - 26 selections were made (16%)
- Approximately 40% of the Phase I contracts are selected for Phase II

Trends for the NASA FY08 Solicitation

- The NASA Technology needs will be similar to what is specified in the FY07 solicitation (sbir.nasa.gov)
- Consolidation - fewer topics and subtopics with more focus on what is wanted by NASA
- More emphasis on higher Technology Readiness Level proposals (more mature technology)
- Emphasis on use of technology in NASA Programs and Projects



Frequently Asked Questions

Is NASA interested in my technology?

Review last year's solicitation for potential areas of interest (sbir.nasa.gov)

What is NASA doing in this area of technology?

Call SBIR Program Office at NASA center(s) that lead the subtopic that is closest to your interests and have them put you in touch with a technical person working in the subject area. **Calls must be made before solicitation opens.**

Does my proposal need to fit into a specific subtopic?

Yes. Proposals that are not responsive to the solicitation may be classified "nonresponsive" and rejected.

What should my proposal look like ?

A sample proposal is available at sbir.nasa.gov – Procurement info – Contract Admin & Closeout - NASA SBIR/STTR Forms Library

Should I consider using consultants and subcontractors?

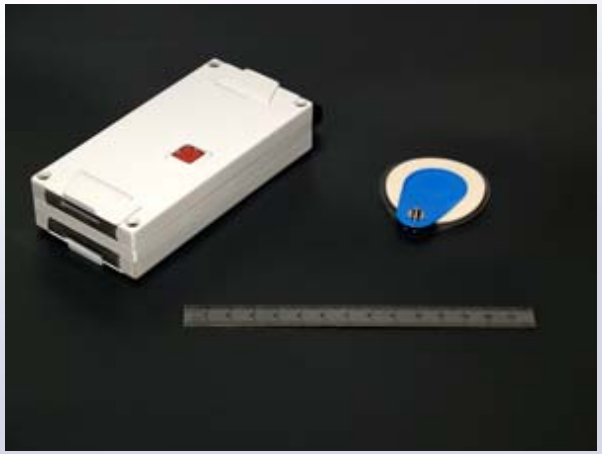
Yes, but remember limitations (1/3 of research work for SBIR), and no NASA Personnel

Can I submit the same proposal to different subtopics if it applies?

No, you risk having all proposals disqualified

Successful Ohio Companies

A&P Technology
Cincinnati, OH
Composite Fan Case With
Braided Fiber Architecture



ZIN Technologies, Inc.
Brookpark, OH
Compact Wireless
BioMetric Monitoring
and Real Time
Processing System

Sunpower, Inc.
Athens, OH
High Efficiency, Long Life,
Low Mass Stirling Engine

Solicitation Dates

NASA Will Issue Concurrent SBIR & STTR Solicitations on July 7, 2008

Closing Date:
September 4, 2008

For Further Information

- Read the web sites - they are good
  - http://sbir.nasa.gov: Click on the Solicitation, then search by technology topic
  - Other SBIR agencies: Search on sbir and agency name e.g. sbir nasa, sbir air force, sbir sba
- Call one of the Points of Contact as listed on next page

sbir.nasa.gov

Points of Contact

ARMD POCs

- Gynelle Steele, GRC Program Manager, 216-433-8258
- Dean Bitler, GRC SBIR Technical Support, 216-433-2226

ESMD POC

- Bob Yang, LaRC Program Manager, 757-864-8020

SMD POC

- Dr. Andrew Gray, JPL Program Manager, 818-354-4906

SOMD POC

- Rich Pisarski, ARC Program Manager, 650-604-0149

Any Questions?